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TECHNOLOGY BLUEPRINT OF ORTHOPAC

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1. EXECUTIVE SUMMARY

The establishment of BabyBliss as well as certification by the Companies Commission of Malaysia took place in February 2024 officially. The company BabyBliss is headquartered in Jalan Semenyih, Kajang, Selangor Darul Ehsan, Malaysia. It focuses on developing innovative, eco-friendly solutions in orthodontic pacifiers that are made primarily from plant-derived plastics named OrthoPac. The business consists of 6 well-positioned staffs, which are Shuraihiyyah Binti Zaid Matsom as the general manager, along with Nurul Husna Binti Norzuki as vice general manager, Fasihah Binti Lukman Hakim as finance manager, Maisarah Salwa Binti Sulaiman as human resources manager, Nur Damia Irdina Binti Mohd Zuhaidi as marketing manager, and Nur Izzah Nadhirah Binti Khairuddin as research and development manager.

BabyBliss is committed to a vision deeply rooted in environmental responsibility and the well-being of future generations. Traditional pacifiers often contribute to environmental pollution, contain chemicals that may pose risks to the health of babies, and lead to dental complications like malocclusion, where there is an alteration of the normal position of teeth. Satisfying the aforementioned situations, our products come with the extra feature of a glow-in-the-dark keychain, as well as a secure attachment system to keep the pacifier from getting lost or falling on the ground, giving parents peace of mind. Our way of ensuring the health of infants and the protection of the environment at the same time is our highest priority in design.

In order to enhance market reach in the early stage of OrthoPac, BabyBliss collaborated with leading baby formula brands such as Dugro and Dutch Lady, as well as paediatric and dental clinics. Distribution will occur through strategic retail partnerships, e-commerce platforms, and social media channels such as Facebook, Instagram, and TikTok. Customers will have access to direct orders, home delivery, and in-store purchases. BabyBliss offers premium quality at an affordable price, with each OrthoPac pacifier set that includes a replacement teat at RM 45.90. Next, to ensure a seamless user experience, each set includes a user manual with detailed product usage instructions as well as a one-month warranty against manufacturing defects with free replacements. OrthoPac is set to launch in 2025, with a strong focus on establishing market presence

and driving profitability. Our goal is to build a recognisable and trusted brand in Malaysia, with long-term expansion into international markets. Through strategic growth initiatives, we aspire to position OrthoPac as a leading choice for eco-friendly orthodontic pacifiers worldwide.

2. PRODUCT OR SERVICE DESCRIPTION

2.1 Description of the Product

OrthoPac is an eco - friendly orthodontic pacifier that was crafted with both health and sustainability issues in mind, regarding infants and toddlers. In contrast to most common or conventional pacifiers produced from plastic materials mixed with artificial rubber or silicone, the production of an OrthoPac involves plant materials, ensuring that the item is non-toxic, fully biodegradable, and void of harmful chemical substances. It has a natural rubber teat that provides both softness and elasticity that mimic a mother's nipple. This provides a natural and soothing experience for babies while encouraging a proper sucking reflex. The shield and clip are made from bamboo fiber, which is strong and a great alternative to plastic, ensuring the pacifier remains durable yet friendly to the environment.

Moreover, the orthodontic shape of the OrthoPac makes it different from other traditional pacifiers. This is specially designed to support the proper development of the oral cavity. Most conventional pacifiers have shapes that tend to exert undue pressure on the developing jaw and teeth of an infant. Infants or toddlers who do not get proper tongue placement or growth of the jaw with a pacifier, thereby eventually causing malocclusion or misalignment of the teeth and the orthodontic treatments by braces, clear aligners, or retainers are required afterward. It includes conditions such as overbite and open bite. Thus, the shape of OrthoPac encourages natural tongue placement and proper positioning of the jaw, which eventually helps reduce the chances of future orthodontic problems that may be faced by pacifier users.

Furthermore, its glow-in-the-dark feature also adds a great usability factor while using it during the nighttime. The problem arises to find a conventional pacifier in

conditions of poor illumination, consequently breaking the baby's sleep cycle. The ring made of soft luminescence makes OrthoPac easier to find in the dark without turning on the bright lights, offering a practical and stress-free way for both parents and babies to have them. OrthoPac also has a clip and stretchable string for additional usability, thus making it attachable to baby's clothes to ensure it does not get misplaced or fall into unsanitary surfaces. The pacifier covers are a protective measure for the pacifier to remain clean and hygienic when not being used.

OrthoPac combines safety, sustainability, and smart functionality that provide the parents with a modern and responsible choice for a quality pacifier that lasts and also supports the baby's health and environmental wellbeing.

2.2 Application of the Product

OrthoPac is specially designed for infants and toddlers, and it is meant to be soothing and calming for them to use. Babies commonly use pacifiers to combat stress, discomfort and establish a sense of security and comfort, including times for bedtime or other stressful moments. The soft natural rubber nipple facilitates babies' natural sucking reflex to satisfy, which is an important step for emotional and oral development.

OrthoPac serves a function beyond simple use as a comfort tool, as it is intentionally designed to assist with healthy oral and jaw development. Some conventional pacifiers may bring about dental issues, including malocclusion or misalignment of teeth, as the developing palate is subjected to the improper force. Hence, OrthoPac has been carefully designed with an ergonomic shape that encourages the correct placement of the tongue and jaw of the infants, with the possible exception of dental concerns with the future.

The use of sustainable materials in OrthoPac production also makes it a great choice especially for eco-friendly parents that seek alternatives to plastic products used for babies. By choosing a biodegradable and chemical-free pacifier, parents can reduce